Express Mail Certificate No. EV298592570US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
APPLICATION FOR LETTERS PATENT

Applicants: WU-HONG HSIEH

Title : FAST RELEASE CLAMP FOR A CYMBAL

8 Claims

5 Sheets of Drawings

William E. Pelton
Reg. No. 25,702
Donald S. Dowden
Reg. No. 20,701
Cooper & Dunham LLP
1185 Avenue of the Americas
New York, New York 10036
(212) 278-0400

FAST RELEASE CLAMP FOR A CYMBAL

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to a fast release clamp, and more particularly to a fast release clamp for a cymbal to enable the cymbal user to replace the cymbal in a short period of time.

2. Description of Related Art

A conventional cymbal clamp is shown in Fig. 5, wherein a cymbal (20) is supported on top of a rod (301) which is securely connected to a cymbal stand (30). The rod (301) has a free end extending out of the cymbal (20) and provided with an outer threading formed on an outer periphery of the free end of the rod (301). A nut (40) is applied to threadingly connect to the free end of the rod (301) such that the cymbal (20) is securely clamped on the rod (301). When the cymbal user is changing the cymbal for a different sound effect, the cymbal user will have to first unscrew the nut (40) and then remove the cymbal (20) from the free end of the rod (301). Thereafter, the cymbal user is able to place a new cymbal (not numbered) on top of the rod (301) and tighten the nut (40) to securely fix the cymbal on the rod (301). The process of changing the cymbal is troublesome and inefficient. Sometimes, during a concert, the band will have to use a break to allow the drummer to fix the cymbal. Therefore, it is said that the conventional structure of clamping the cymbal should be improved to allow the cymbal user (the drummer) to easily and quickly change the cymbal and thus a concert might continue without any break for replacing the cymbal.

To overcome the shortcomings, the present invention tends to provide an improved cymbal clamp to mitigate the aforementioned problems.

SUMMARY OF THE INVENTION

The primary objective of the present invention is to provide an improved clamp for a cymbal. The clamp includes a top pressing member, an assembly block and a handle. The top pressing member has an extension extending into the assembly block. The handle is pivotally connected to the assembly block and has a wedged head formed to abut an outer periphery of the extension to secure the engagement between the top pressing member and the assembly block such that the cymbal sandwiched between the upper abutting element of the top pressing member and the lower abutting element is secured and the replacement of the cymbal is able to be accomplished within a short period of time by releasing the abutment of the handle to the outer periphery of the extension and pulling the top pressing member away from the assembly block.

Another objective of the present invention is to provide an auxiliary abutting fitting is provided to the outer periphery of the extension to engage with the wedge head of the handle to further secure the engagement between the extension and the assembly block.

Other objects, advantages and novel features of the invention will become more apparent from the following detailed description when taken in conjunction with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a perspective view a fast release clamp of the present invention;

Fig. 2 is an exploded perspective view showing the elements of the clamp of the present invention;

Figs. 3 and 4 are schematic views showing the application of the clamp to a cymbal; and

Fig. 5 is a perspective view of a conventional cymbal stand.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

With reference to Figs. 1 and 2, the fast release clamp in accordance with the present invention includes a top pressing member (10), an assembly block (15) and a handle (17).

The top pressing member (10) is composed of an upper abutting element (11) integrally formed on a bottom of the top pressing member (10) and an extension (101) extending from a bottom of the upper abutting element (11). An lower abutting element (12) is separate from the upper abutting element (11) and a first sleeve (121) is sandwiched between the upper abutting element (11) and the lower abutting element (12). A second sleeve (13) is provided with a step (131) formed on a top portion of the second sleeve (13) and has a C-shaped clamp mounted around the second sleeve (13).

The assembly block (15) has a central through hole (150), a first fixing hole (151), a second fixing hole (152) both defined in a side wall of the assembly block (15), a slot (155) defined in a side wall of the assembly block (15) to communicate with the central through hole (150) and a pin hole (156) oppositely defined through the assembly block (15) to communicate with the slot (155). A supporting hole (154) is defined in the assembly block (15) for receiving therein

a support (16) of a cymbal stand (not shown) and a receiving space (156) is defined in the assembly block (15) to communicate with the central through hole (150).

The handle (17) has a wedge head (170) formed on distal end of the handle (17) and a hole (173) defined in the wedge head (170) to correspond to the pin hole (156) of the assembly block (15).

With reference to Figs. 3 and 4, when the clamp of the present invention is to be assembled and applied to a cymbal (20), the extension (101) of the top pressing member (10) is extended through an extension hole (201) of the cymbal (20) (as shown in Fig. 2), the first sleeve (121), the lower abutting element (12), the second sleeve (13), the C-shaped clamp (14) and into the assembly block (15) from the central through hole (150). The support (16) from the cymbal stand is threadingly extended into the supporting hole (154) of the assembly block (15). Then a first fixing element (157), such as a bolt, is threadingly extended into the first fixing hole (151) to secure the support (16) inside the supporting hole (154). A second fixing element (158), such as a bolt, is threadingly extended into the second fixing hole (152) to secure the extension (101) inside the central through hole (150). It is noted that the first sleeve (121) is sandwiched between and received in the upper abutting element (11) and the lower abutting element (12). Meanwhile, the step (131) of the second sleeve (13) is received in the lower abutting element (12) so that the lower abutting element (12) is supported by the second sleeve (13) which is securely attached to a top face of the assembly block (15). Furthermore, the C-shaped clamp (14) is received in the central through

hole (150) and is extended by the extension (101). An auxiliary abutting fitting (18) is securely received in the slot (155) to abut an outer periphery of the C-shaped clamp (14). A pin (171) is extended through the pin hole (156) of the assembly block (15) and into the hole (173) of the handle (17) to allow the handle (17) to be pivotal relative to the assembly block (15).

It is noted that because the hole (173) is eccentrically defined in the wedge head (170), when the handle (17) is pivoted, the wedge head (170) abuts a face of the auxiliary abutting fitting (18) to force the C-shaped clamp (14) to engage with an outer periphery of the extension (101) such that the extension (101) is secured inside the assembly block (15) in addition of the second fixing element (158). Thus, the assembly of the clamp of the present invention is finished.

When replacing the cymbal (20) is required, the cymbal user only needs to lifts the handle (17) to release the abutment of the wedge head (170) to the auxiliary abutting fitting (18), the resilience from the C-shaped clamp (14) will force the auxiliary abutting fitting (18) away to allow the top pressing member (10) to be movable relative to the assembly block (15). Thereafter, the cymbal user is able to lift the top pressing member (10) to proceed the replacement of the cymbal (20) in a relative short period of time and resume every element in place easily by pulling the handle (17) downward to abut the auxiliary abutting fitting (18).

It is to be understood, however, that even though numerous characteristics and advantages of the present invention have been set forth in the

foregoing description, together with details of the structure and function of the invention, the disclosure is illustrative only, and changes may be made in detail, especially in matters of shape, size, and arrangement of parts within the principles of the invention to the full extent indicated by the broad general meaning of the terms in which the appended claims are expressed.